

**ASSESSMENT OF FISH CONSUMPTION AMONG SPORT-FISHERS ON THE ST. LAWRENCE  
RIVER IN THE MONTREAL REGION: RELIABILITY/CALIBRATION STUDY**

**B. Shatenstein, T. Kosatsky, J-P Weber, S. Lussier-Cacan**  
**Montreal Regional Public Health Board. Environmental Health Unit**  
**75 Port-Royal east, Montreal, Quebec CANADA. H3L 3T1**

**ABSTRACT**

*Fish are a source of both environmental contaminants and the cardioprotective omega-3 fatty acids. Two hundred Montreal-area fishers are being studied in different seasons to assess the health impact of sportfish consumption; interviews and collection of blood, hair and urine are used to quantify their exposure to toxic and beneficial substances. The reliability and accuracy of study instruments are being evaluated in a sub-sample of high-level fish consumers in both winter and summer fishing seasons. An 87-item questionnaire ("Time 1") administered face-to-face by dietitians provided data on fishing habits and fish consumption. The calibration process required completion of a non-consecutive seven-day food record, covering a four-week period. The first day of the food record was done with the fishers as a 24-hour recall; they were then monitored by telephone. SOEHNLE™ electronic scales were loaned for portion size estimation. Participants also kept a "fish consumption calendar", to assess the accuracy of concurrent questionnaire data. Fishers were interviewed again at the end of the calibration period, using a shortened version of the initial questionnaire ("Time 2"), and provided a second blood sample. The food records were analysed using the NUTRIENT ANALYSIS PROGRAM, based on the 1991 Canadian Nutrient File, including omega-3 fatty acid values. Once the complete calibration sample of 29 high level fishers is assembled, comparative results will be presented on retrospective fish consumption data at Times 1 and 2; the prospective measures (food record and calendar) will be correlated with the retrospective data obtained at Time 2; and plasma fatty acids and mercury at Times 1 vs. 2, correlated with the prospective data on fish consumed during the calibration period. It is expected that accurate food consumption data could ultimately serve as a surrogate for the invasive collection of biological specimens, permitting easier detection of potentially-hazardous fish consumption levels in population-based studies.*